



**Luminant**

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Log # TXX-13130

REF 10 CFR 2.202

August 28, 2013

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

**SUBJECT:** Comanche Peak Nuclear Power Plant, Docket Nos. 50-445 AND 50-446,  
First Six-Month Status Report in Response to March 12, 2012 Commission Order  
Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order  
Number EA-12-051) (TAC NOS. MF0862 AND MF0863)

- REFERENCES:**
1. NRC Order Number EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, dated March 12, 2012.
  2. NRC Interim Staff Guidance JLD-ISG-2012-03, Compliance with Order EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, Revision 0, dated August 29, 2012.
  3. NEI 12-02, Industry Guidance for Compliance with NRC Order EA-12-051, "To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation", Revision 1, dated August 2012.
  4. Luminant Generation Company LLC's Letter TXX-12156, Initial Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), dated October 25, 2012.
  5. Luminant Generation Company LLC's Letter TXX-13040, Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), dated February 28, 2013.
  6. Luminant Generation Company LLC's Letter TXX-13103, "Response to Request for Additional Information Regarding Overall Integrated Plan in Response to March 12, 2012, Commission Order to Modify License with Regard to Reliable Spent Fuel Pool Implementation (Order Number EA-12-051)," dated July 3, 2013.

Dear Sir or Madam:

On March 12, 2012, the Nuclear Regulatory Commission ("NRC" or "Commission") issued an order (Reference 1) to Luminant Generation Company LLC (Luminant Power). Reference 1 was immediately effective and directs Luminant Power to have a reliable indication of the water level in associated spent fuel storage pools capable of supporting identification of specified levels in

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the pool water level conditions by trained personnel. Specific requirements are outlined in Attachment 2 of Reference 1.

Reference 1 required submission of an initial status report 60 days following issuance of the final interim staff guidance (Reference 2) and an overall integrated plan pursuant to Section IV, Condition C. Reference 2 endorses industry guidance document NEI 12-02, Revision 1 (Reference 3) with clarifications and exceptions identified in Reference 2. Reference 4 provided Luminant Power's initial status report regarding Reliable Spent Fuel Pool Instrumentation, as required by Reference 1. Reference 5 provided Luminant Power's integrated plan. Reference 6 provided Luminant Powers's response to a request for additional information (RAI) regarding the overall integrated plan.

Reference 1 requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Reference 3 provides direction regarding the content of the status reports. The purpose of this letter is to provide the first six-month status report pursuant to Section IV, Condition C.2, of Reference 1, that delineates progress made in implementing the requirements of Reference 1. The attachment to this letter provides an update of milestone accomplishments since the overall integrated plan was submitted (Reference 5), including any changes to the compliance method, schedule, or need for relief and the basis, if any.

Subsequent to the submittal of Reference 6, information contained in the responses to RAIs 2.a, 2.b, 9.a, 9.b, and 9.c provided in Reference 6 has changed. As a result of communications between Carl Corbin of Luminant Power and Balwant Singal of the NRC Staff, an updated response to RAIs 2.a, 2b, 9.a, 9.b, and 9.c is provided in the attachment to this letter.

This letter contains no new regulatory commitments.

If you have any questions regarding this report, please contact Carl B. Corbin at (254) 897-0121 or [carl.corbin@luminant.com](mailto:carl.corbin@luminant.com).

I state under penalty of perjury that the foregoing is true and correct.

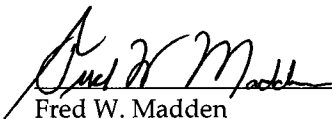
Executed on August 28, 2013.

Sincerely,

Luminant Generation Company LLC

Rafael Flores

By:



Fred W. Madden  
Director, Oversight & Regulatory Affairs

Attachment: Comanche Peak Nuclear Power Plant (CPNPP), First Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)

c - Eric J. Leeds, Director, Office of Nuclear Reactor Regulation  
Steven A. Reynolds, Region IV  
Jessica A. Kratchman, NRR/JLD/PMB  
Balwant K. Singal, NRR  
Resident Inspectors, Comanche Peak

**Comanche Peak Nuclear Power Plant (CPNPP), First Six-Month Status Report  
in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to  
Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)**

**1 Introduction**

Comanche Peak Nuclear Power Plant developed an overall integrated plan (OIP) (Reference 1 [Refer to Section 10 of this attachment for a list of references.]), which includes a description of how compliance with the requirements described in Reference 2, Attachment 2 will be achieved. This attachment provides an update of milestone accomplishments since submittal of Reference 1, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

**2 Milestone Accomplishments**

The following milestones have been completed since the development of the OIP (Reference 1) and are current as of August 28, 2013:

On July 3, 2013 Luminant responded (Reference 4) to a Nuclear Regulatory Commission (NRC) request for additional information (RAI) regarding the OIP for reliable spent fuel pool (SFP) instrumentation (Reference 3).

In addition, Unit 1 and Unit 2 engineering and design has commenced.

**3 Milestone Schedule Status**

The following table provides an update to the milestone schedule. It provides the activity status of each item, and whether the expected completion date has changed. The dates are subject to change as design and implementation details are developed.

There were no changes to the original target completion dates.

Milestone	Original Target Completion Date	Activity Status	Target Completion Date Changes
Submit 60-day progress report	10/2012	Complete	
Submit overall integrated plan	2/2013	Complete	
Submit six-month updates			
Update 1	8/2013	Complete	
Update 2	2/2014	Not started	
Update 3	8/2014	Not started	
Update 4	2/2015	Not started	
Update 5	8/2015	Not started	
Update 6	2/2016	Not started	
Update 7	8/2016	Not started	
Request for Additional Information			
Submit RAI response	7/2013	Complete	
Commence Engineering and Design	1Q2013	Complete	
Complete Design	2Q2014	Started	
Receipt of SFP instruments	2Q2014	Not Started	
Complete SFP Instrumentation Procedures and Training	3Q2014	Not Started	

Milestone	Original Target Completion Date	Activity Status	Target Completion Date Changes
SFP Instruments Operational	4Q2014	Not Started	

**4 Changes to Compliance Method**

None

**5 Need for Relief and Basis for the Relief**

Luminant expects to comply with the implementation date in the Order. No relief is being requested at this time.

**6 Open Items from Overall Integrated Plan**

None

**7 Changes to Overall Integrated Plan**

Information provided in responses to RAIs 2.a, 2.b, 9.a, 9.b, and 9.c has changed since the July 3, 2013 submittal (Reference 4). The credited display units will not be located in the main control room but will be in the vicinity of the control room. Exact locations will be determined in the detailed design and more information will be provided by November 30, 2013. These RAIs are added as open items in Section 8 below.

**8 Open Items from the Request for Additional Information**

Luminant submitted a response to an RAI regarding the reliable SFP instrumentation OIP (Reference 4). In its response, Luminant committed to provide a status update of the information necessary to complete its response to the RAIs.

The following provides a summary and status of the RAI open items.

RAI-2

- a) A clearly labeled sketch or marked-up plant drawing of the plan view of the SFP area, depicting the SFP inside dimensions, the planned locations/ placement of the primary and back-up SFP level sensor and mounting brackets, and the proposed routing of the cables that will extend from the sensors toward the location of the read-out/display device.

Status provided by Reference 4: "Below are excerpts from plant drawings being used as sketches that depict the conceptual locations of the two permanently mounted level probes within the SFP area and the cable routing to locate the electronics to a non-harsh environment outside the SFP area. The level transmitter electronics will be located in the Auxiliary Building EL 852'0", which is separated from the SFP area by pressure boundary doors. The level transmitters located in the Auxiliary Building have a local display, although the credited display units will be located in the main control room on the east wall, just off the control board area. The final locations of the channel components and cable routing will be determined during the design phase, anticipated to be completed by December 31, 2013"

Updated status: The credited display units will not be located in the main control room but will be in the vicinity of the control room. The related figure (page 8 of Attachment to Reference 4) showing the tentative component locations of the wireless receivers will also need to be updated. The location of the display units is being developed as part of the detailed design and more information will be provided by November 30, 2013.

- b) In the event any part of this information is not available with the submittal of your response to this RAI, provide the date this information will be submitted.

Status: The credited display units will not be located in the main control room but will be in the vicinity of the control room. Exact locations will be determined in the detailed design and more information will be provided by November 30, 2013.

RAI-6

- a) A description of the electrical AC power sources and capacities for the primary and backup channels.

Status: A description of the electrical AC power sources and capacities for the primary and backup channels will be developed as part of the detailed design and more information will be provided by November 30, 2013.

RAI-7

- a) An estimate of the expected instrument channel accuracy performance under both (1) normal SFP level conditions (approximately level 1 or higher) and (2) at the beyond-design-basis conditions (i.e., radiation, temperature, humidity, post-seismic and post-shock conditions) that would be present if the SFP level were at the level 2 and level 3 datum points.

Status: The instrument channel accuracy will be established during the design phase. An estimate of the expected instrument channel accuracy under normal and beyond-design-basis conditions will be provided by November 30, 2013.

- b) A description of the methodology that will be used for determining the maximum allowed deviation from the instrument channel design accuracy that will be employed under normal operating conditions as an acceptance criterion for a calibration procedure to flag to operators and to technicians that the channel requires adjustment to within the normal condition design accuracy.

Status: The calibration procedure, and the methodology and basis for establishing both the criteria indicating the need for recalibration, and the acceptance criterion to be used with the procedure, will be established during the design phase. The methodology for defining these criteria will be provided by November 30, 2013.

### RAI-8

(Note – Reference 4 incorrectly identified items under RAI 8 as c), d), e), and f). The items under RAI 8 are renamed (i.e., a), b), c), and d)) to match the RAIs as listed in the NRC Request for Additional Information (Reference 3).

- a) A description of the capability and provisions the proposed level sensing equipment will have to enable periodic testing and calibration, including how this capability enables the equipment to be tested in-situ.

Status: Details of the capabilities and provisions of the level instrumentation for periodic calibration and testing will be established during the design phase. A description of these features and the way they will support in-situ testing will be provided by November 30, 2013.

- b) A description of how such testing and calibration will enable the conduct of regular channel checks of each independent channel against the other, and against any other permanently-installed SPF level instrumentation.

Status: A description of how the defined testing and calibration will enable the conduct of regular channel checks of each independent channel against the other, and against any other permanently-installed SPF level instrumentation will be provided by November 30, 2013.

- c) A description how functional checks will be performed, and the frequency at which they will be conducted. Please describe how calibration tests will be performed, and the frequency at which they will be conducted. Also, a discussion as to how these surveillances will be incorporated into the plant surveillance program.

Status: Details of functional checks and instrument channel calibrations will be determined during the design phase. A description of how functional checks and calibration tests will be performed, and the frequency at which they will be conducted, will be provided by November 30, 2013. An explanation of how these surveillances will be incorporated into the plant surveillance program will be included.

- d) A description what preventative maintenance tasks are required to be performed during normal operation, and the planned surveillance interval that is necessary to ensure that the channels are fully conditioned to accurately and reliably perform their functions when needed.

Status: The preventative maintenance tasks required to be performed during normal operation, and the planned surveillance intervals will be determined during the design phase. A description of these tasks and intervals will be provided by November 30, 2013.

### RAI-9

- a) The specific location for the primary and backup instrument channel display.

Status: The credited display units will not be located in the main control room but will be in the vicinity of the control room. Exact locations will be determined in the detailed design and more information will be provided by November 30, 2013..

- b) If the primary or backup display location is other than the main control room, then provide justification for prompt accessibility to displays including primary and alternate route evaluation, habitability at display location(s), continual resource availability for personnel responsible to promptly read displays, and provisions for communications with decision makers for the various SFP drain down scenarios and external events.

Status: The credited display units will not be located in the main control room but will be in the vicinity of the control room. Exact locations will be determined in the detailed design and more information will be provided by November 30, 2013..

- c) The reasons justifying why the locations selected enable the information from these instruments to be considered "promptly accessible" to various drain-down scenarios and external events.

Status: The credited display units will not be located in the main control room but will be in the vicinity of the control room. Exact locations will be determined in the detailed design and more information will be provided by November 30, 2013..

#### RAI-10

Please provide a description of the standards, guidelines and/or criteria that will be utilized to develop procedures for inspection, maintenance, repair, operation, abnormal response, and administrative controls associated with the SFP level instrumentation, as well as storage and installation of portable instruments.

Response provided by Reference 4: Appropriate quality assurance measures will be selected for spent fuel pool level instrumentation (SFPLI) required by the order (EA-12-051) consistent with Appendix A-1 of NEI 12-2, similar to those imposed by Regulatory Guide 1.155. Site procedures for inspection, maintenance, repair, operation, abnormal response and administrative controls for the SFP level instrumentation will be developed in accordance with Comanche Peak procedure controls, using the vendor technical manual and other documentation. The vendor technical manual and documentation will include principles of operation, inspection and maintenance recommendations, drawings and technical documentation, individual component manufacturer manuals and documentation and recommended spare parts. Additional procedures for abnormal response will be developed in conjunction with FLEX implementation. As these procedures are developed, additional details will be provided in 6 month updates. These procedures are expected to be complete by June 30, 2014.

Status: The procedures have not been developed. A description of these procedures will be provided by June 30, 2014.

#### RAI-11

- a) Further information describing the maintenance and testing program the licensee will establish and implement to ensure that regular testing and calibration is performed and verified by inspection and audit to demonstrate conformance with design and system readiness requirements. Please include a description of your plans for ensuring that necessary channel checks, functional tests, periodic calibration, and maintenance will be conducted for the level measurement system and its supporting equipment.

Response provided by Reference 4: Comanche Peak will establish and implement procedures for control and oversight of SFPIS maintenance and testing. The new



procedure(s) will include requirements for all necessary tests to be performed, frequency of testing, acceptance criteria, and requirements for inspection and audit of test performance and results. As these procedures are developed information will be provided to the NRC in 6 month updates. These procedures are expected to be complete by June 30, 2014.

Status: The procedures have not been developed. A description of these procedures will be provided by June 30, 2014.

- b) A description of how the guidance in NEI 12-02 Section 4.3 regarding compensatory actions for one or both non-functioning channels will be addressed. Please include a description of what compensatory actions are planned in the event that one of the instrument channels cannot be restored to functional status within 90 days.

Response provided by Reference 4: Comanche Peak will implement measures to minimize the possibility of either the primary or backup channel being out of service for any extended period. Sufficient spares components and materials will be maintained to be able to repair or replace defective components in a short time. Comanche Peak will follow the NEI 12-02 guidance with regard to time during which one or more channels may be out of service, including compensatory actions. As details are developed information will be provided to the NRC in 6 month updates. Final details will be provided by June 30, 2014.

Status: Compensatory action will be developed in the detailed design phase. A description of these procedures will be provided by June 30, 2014.

## 9 Potential Safety Evaluation Report Impacts

There are no potential impacts to the Safety Evaluation Report identified at this time.

## 10 References

The following references support the updates to the OIP described in this document.

1. Luminant Generation Company LLC's Letter TXX-13040, Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), dated February 28, 2013
2. NRC Order Number EA-12-051, Issuance of Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, dated March 12, 2012
3. NRC Letter to Luminant Generation Company LLC, Comanche Peak Nuclear Power Plant, Units 1 and 2 -Request For Additional Information Re: Overall Integrated Plan In Response To Order EA-12-051, "Reliable Spent Fuel Pool Instrumentation" (TAC Nos. MF0862 And MF0863), dated June 7, 2013
4. Luminant Generation Company LLC's Letter TXX-13103, Response to Request for Additional Information Regarding Overall Integrated Plan in Response to March 12, 2012, Commission Order to Modify License with Regard to Reliable Spent Fuel Pool Implementation (Order Number EA-12-051), dated July 3, 2013